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Epilepsy

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An Essay

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History and Pathology

of

Epilepsy

By William Shutter
of
Fredericksburg
Virginia.

1825

of the

Epilepsy.

Non mihi est tempus aventi
Ponere signa novis praeceptis. Ovi.

Disease, the penalty incurred by the disobedience of our progenitors, assails man in such a variety of shapes and through so many avenues, that it would be impossible for the multiform Proteus to represent, the wisdom of Solomon to explore; or the strength of Hercules to resist it. Attacking impartially, the peasant in his hut, and the prince in his palace; it lays its iron hand on the head of supreme majesty and humble inferiority. Its power is not displayed in a more terrific form, or in a more insidious guise than when it seizes on the nervous system. This fabric, so exquisitely delicate & sensative, is so intimately connected with the mental faculty, that when it is assailed by disease; it throws into confusion the most admirable of man's possession

his mind. No diseases are more obscure in their character, or perplexing in their treatment, than those of the nervous system. They present themselves in a variety of forms, sometimes consuming by a gradual & prolonged disease, the vital principle; again they manifest themselves in a more violent and heart-rending character, either throwing the subject of its violence into a, "Demoniac phrenzy, moping melancholy,
Or moon-struck madness."

Among the most untractable of the nervous affections, Epilepsy may be ranked. This disease has baffled the efforts of ages in repelling its violence, and in discerning its nature; it seems to be one of those arcana of Pandora, that is wound up in Gordian complicacy, and which cannot be unraveled by the most skillful and penetrating mind. Men, who have examined the most profound mysteries of Nature, who have explored the hidden treasures of our mother earth, who have ploughed the deep in a frail bark, directed in their course by the unvarying compass, and whose

minds have penetrated, beyond the visible diurnal sphere; have failed in obtaining a correct knowledge of this most obscure & harassing complaint.

In pursuing a subject involved in so much mystery and obscurity, I can only collect together the observations & opinions of the most illustrious authors, and draw such inferences as their views may suggest. It may be necessary in conformity to the plan usually adopted to give, first, a history of its Symptoms.

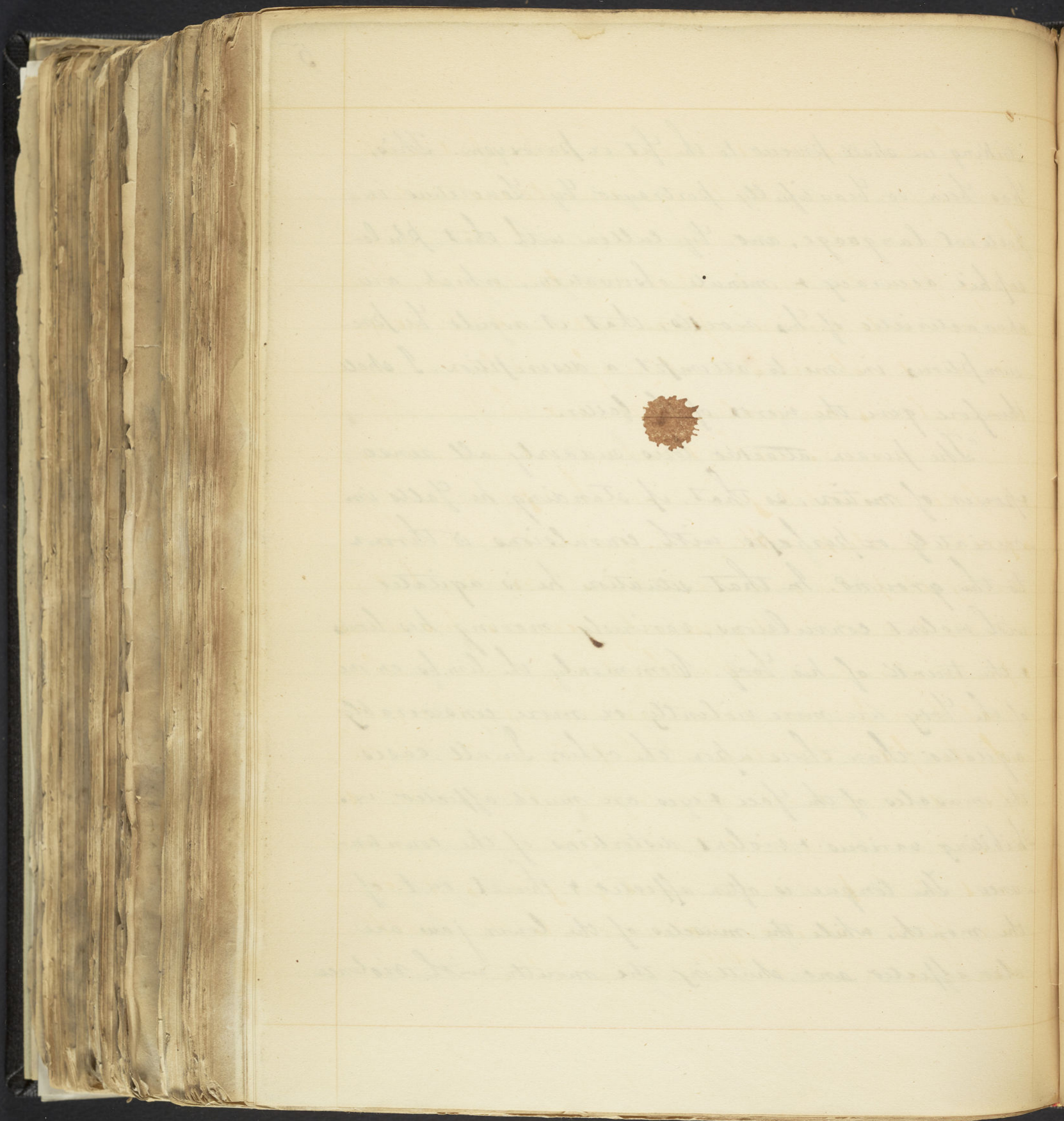
An attack of epilepsy is sometimes, though not always attended by signs, which indicate an approach of the paroxysm. They are a languidness & torpor of the body, a pain or giddiness in the head, drowsiness or disturbed sleep, dimness of sight and tinnitus aurium. Many other premonitory symptoms have been enumerated by authors, the most unequivocal of which is the Aura Epileptica. This consists in a very peculiar sensation, which is differently represented by different persons; some

have the feeling produced by a gentle breeze flowing over the surface of the body, from which sensation it derives its name; others liken it to the creeping of an insect over the surface or to the pouring a stream of cold water from the inferior to the upper part of the body. The sensation always commences in some portion of the body, generally at the toes, and ascends to the head; so soon as it reaches the brain, the fit is said to commence. The cause of so singular a feeling, is not exactly determined; but it must evidently be seated in the nerves and through their medium transmitted to the brain. Dr. Cullen, has supposed & I conceive very correctly, that the aura epileptica is produced by some irritating matter applied to the nervous extremities; he has known it arise from "something irritating or pressing upon a particular nerve, and that sometimes from a contusion or wound."

To collect together all the admonitory symptoms, would occupy more time & space than the occasion demands. Having noticed the most

striking we shall proceed to the fit or paroxysm. This, has been so beautifully portrayed by Lucretius in poetical language, and by Cullen with that philosophic accuracy & minute observation, which are characteristic of his works; that it would be presumptious in me to attempt a description: I shall therefore give the words of the latter.

"The person attacked loses suddenly all sense & power of motion, so that, if standing he falls immediately or perhaps with convulsions is thrown to the ground. In that situation he is agitated with violent convulsions, variously moving his limbs & the trunk of his body. Commonly the limbs on one of the body are more violently or more considerably agitated than those upon the other. In all cases the muscles of the face & eyes are much affected, exhibiting various & violent distortions of the countenance. The tongue is often affected & thrust out of the mouth, while the muscles of the lower jaw are also affected and shutting the mouth with violence



while the tongue is thrust between the teeth, that is often grievously wounded. While these convulsions continue there is commonly at the same time a frothy moisture issuing from the mouth. These convulsions, have for some moments some remissions, but suddenly renewed with great violence. Generally, after no long time, the convulsions cease altogether; and the person for some time remains without motion, but in a state of absolute insensibility, & under the appearance of a profound sleep. After some continuance of this seeming sleep, the person sometimes suddenly, but for the most part by degrees only, recovers his senses & power of motion; but without any memory of what had passed from his being first seized with the fit." The state of the pulse varies in the different stages & according to the violence of the fit. It is generally small & irregular at the commencement of the paroxysm, as it progresses it becomes more full & strong, and returns to the healthy standard when the fits has worn off.

The secretions and excretions are more or less affected. Dr Cooke observes, that bile in great quantities is in some ejected from the stomach, and a thick viscid saliva from the mouth. Not unfrequently the fæces & urine are involuntarily and forcibly discharged "Erigitur quoque penis in infantibus, in adolescentibus semen ejicitur." These are the phenomena observed in a regular paroxysm of epilepsy; they however vary according to the violence & duration of the attack. Patients, are more susceptible to a fit, immediately after having awoke from sleep; sometimes they are roused suddenly from repose, by the approach of a paroxysm. Darwin attributes this liability to the disease at such a period, to an increase of sensibility. The return of a paroxysm is very variable generally, though sometimes periodically recurring every week, month, or year.

It has no regard for age, sex, condition or habit: affecting equally the young & old, male & female, the grave as well as the gay.

Some authors are among them Heberden assert that the male are more frequently its subjects than the female. This, however, does not comport with the experience of most authors, so that this distinction cannot be drawn. Children, are certainly more obnoxious to this disease, and it may be assign-ed to the many incidental causes, they are liable to be subjected. An epileptic paroxysm in chil-dren is apt to terminate in death: this is not of-ten the result in adults, though sometimes vitality is extinguished by the force & intensity of the shock. Its effects, when death is not the immediate consequence, are often very distressing: frequently apoplexy is pro-duced, sometimes paralysis, and idiotism & other af-fections of the mental faculty, are frequent conseque-ces of this malady. The most alarming & disagreeable concomitant is the "Mania Epileptica". Dr Pritchard says "this affection generally appears when the patient is expected to revive from a comatose state consequent on a severe fit; the face is flushed & the aspect of

the patient is like that of a man under intoxication; he attempts to start from bed, and run about; and being withheld vociferates & endeavours to overcome resistance. Sometimes an appearance of maniacal hallucination displays itself, but more generally the disorder resembles phrenitic delirium. It commonly continues one, two, or three days during which the patient requires confinement in a straight waistcoat, & then gradually subsides, & the patient returns into his usual state."

Epilepsy, it has been remarked, will frequently disappear in children on their approach to puberty & in young females it will be often repulsed by the appearance of the catamenia. These, however, are not always the fortunate results of this insidious disease, but, it sometimes remains a lasting evil, rendering the life of the person; who is so unfortunate as to be its victim, wretched. From the continual apprehension of an attack, from this pusilanimous enemy. His pleasures, are lessened and

his mind oppressed by the consciousness of his having within his bosom, a viper that will knaw his body and extinguish life.

"Horrid to think, how horrible to feel."

After this cursory view of the phenomena of epilepsy it will be necessary to notice its

Causes.

These are more extensive than belong to any other disease, to which the human frame is subjected. It cannot therefore, be expected that the whole of them, will be mentioned in this paper. A state, of the system predisposing to this affection has been noticed by most writers on this subject. In what this predisposition consists, is not determined: Dr Cullen mentions a certain condition of the brain, which is called by him a mobility of this organ, & is supposed to exist in those persons, who are of a fickle & changeable disposition equally prone to gaiety & anger; "qui colligit ac ponit iram temere et mutatur in horas." this says he is the "varium et mutabile femina".

We conceive this mobility to consist in either excess of sensibility or irritability, which renders the exciting cause more ready in its effects. From this easy susceptibility to an impression, made by an excitant. That debility predisposes to this disease, we cannot doubt, as we have the satisfactory assertions of the most acute observers: among others Dr Cullen is convinced that is the fact from the circumstance of women, children, & persons of a debilitated condition being mostly subject to this disease. Although, debility may act as a predisponent, it is not a necessary attendant, as we find the most athletic & robust habits, are seized on by this foe, and prostrated at his feet.

A plethoric habit has been commonly observed to render a person particularly susceptible to epilepsy. That it is capable of such an effect we have the positive evidence of Van Swieten, Cullen, Coste & many others. Plethora in predisposing to this disease must operate, by increasing the irritability of the brain, by the stimulus of overdistension.

mentioned by Cullen. Certain conformations of the body, are said to be more open to this disease: they are nearly the same as those noticed in apoplectics; consisting chiefly of a large head, a short neck and it is observed by Leake, Lorrey & others, that the crania of epileptics, are thicker than in other persons. An hereditary tendency appears to exist in some families; so that the disease is transmitted from parents to their children; sometimes it lies dormant for several years and then reappears. It has been observed, that persons who have been intemperate in their habits, indulging in inebriety and other debilitating practices, have exempted their progeny from the disease, by becoming sober, temperate and uniform in their manner of living.

The exciting causes, are very numerous; they seem to act principally by producing irritation on the nervous system. Cullen supposes them to operate by excitement and collapse, & arranges them under each of these heads. He has mechanical,

mental, & the peculiar stimulus of over distention. This division embraces all the causes which act by excitement; those operating by collapse he arranges individually under that head. The causes, which bring on this disease may exist in the brain itself, or be seated in remote parts of the body. Thus we find the skull acting as an irritant, by apicula or bony protuberances, shooting from its internal surface and consequently pressing upon the encephalon, tumors arising from within the cranium, hydatids & effusions are frequently found to exist; and are mentioned in the morbid dissections of Morgagni, Baillie & all others who have written on the appearances post-obit. Abscesses, extensive effusions, and even structural disorganization of the Brain have been noticed by Morgagni. Engorgement of the Brain is also mentioned by most writers; Dr Johnston observes "it is the derangement of Balance in the circulation & excitement alone that can produce the immediate phenomena of epilepsy." This constitutes Dr Cullen's

fourth division of the causes acting by excitement, & what he considers an overdistention of the vascular system of the Brain. That such a cause he observes will operate in producing epilepsy is probable from this, that the dissections of persons dead of this disease, has commonly discovered the marks of a previous congestion in the bloodvessels of the brain. This observation is confirmed by Morgagni and others who have examined the epileptic post mortem.

Among the many causes acting directly on the brain, is a strong emotion of any of the passions. Terror, perhaps, oftener than any other passion has produced this disease: instances are related by almost every author on the subject. Dr Coste, in his treatise on epilepsy, has collected together a number of interesting cases of the effects of alarm; some of which I shall take the liberty to mention. A lady, as related by Van Swieten, during pregnancy was so much alarmed by a fire in the neighbourhood, that she fell into convulsive

fits which ultimately proved fatal. Tissot, saw a female thrown into convulsive fits, upon receiving an insult from a insolent fellow: from which she never recovered. Out of fourteen patients under the care of a German physician, at Vienna six were induced by terror; a strong evidence of the power this passion possesses of the cases with which it should be avoided. On the horrible 10th August, when such a dreadful massacre ensued at Paris, a young man, was so strongly affected by the scene as to become epileptick.

Impressions, made on the senses by strong occours, have been assigned as a cause of this disease; Dr Cullen is disposed to attribute their action to horror. The passions, are often roused, in public assemblies, where political subjects, are discussed, to such a height, as to bring on this disease: so frequently did it occur in the Comitia of the Romans, that it obtained the name of Morbus Comitialis, and was held in such